

SYSTEM AND METHOD OF CARRIER REINJECTION

IN A FEEDFORWARD AMPLIFIER

ABSTRACT OF THE DISCLOSURE

A dual loop feedforward power amplifier. A dual loop
5 feedforward power amplifier, comprising an input that provides a
multicarrier signal; a first feedforward power amplifier; and a
second feedforward power amplifier, wherein the first feedforward
power amplifier serves as a main amplifier gain block in the second
feedforward power amplifier, wherein the first feedforward power
10 amplifier comprises a carrier cancellation loop and a first error
amplifier loop, and wherein the second feedforward power amplifier
comprises a third loop and a fourth loop that cancel small signal
distortions that are not reduced by the first feedforward
amplifier.

15